JOHN L. COOPER (State Bar No. 050324)
FARELLA BRAUN + MARTEL LLP
235 Montgomery Street, 17th Floor, San Francisco, CA 94104
Tel: 415.954.4400 / Fax: 415.954.4480
jcooper@fbm.com

Attorneys for Rule 706 Expert, James R. Kearl

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

_____ ORACLE AMERICA, INC. Plaintiff, v. GOOGLE, INC. Defendant. _____	)))))))))))))

Case No. 10-CV-03561-WHA

RESPONSE OF DR. JAMES R. KEARL, RULE 706 EXPERT, TO GOOGLE'S MOTION TO STRIKE PORTIONS OF EXPERT REPORT AND TESTIMONY OF DR. JAMES R. KEARL

Date: April 27, 2016 at 8:00 am
Dept.: Courtroom 8, 19th Floor
Judge: Honorable William H. Alsup

Filed: April 8, 2016

Response of Dr. James R. Kearl, Rule 706 Expert, to Google's Motion to Strike
Portions of Expert Report and Testimony of Dr. James R. Kearl   April 8, 2016

I.   Summary of Google's Objections

Google objects to three opinions that, in Google's words, span "an extremely broad range, that are based solely on assumptions without evidentiary support."[1] Specifically, Google objects to three of my disgorgement opinions: (a) the disgorgement damages total of $2.08 billion, based on an assumed reduction in Android market share of 13.55% using the results of the Shugan and Cockburn reports from the first phase of this litigation;[2] (b) the disgorgement damages total of $3.51 billion, based on an assumed reduction in Android market share of 20.7% (varying year by year) from my adjustment to the Leonard adaptation of the Kim model;[3] and (c) the disgorgement damages total of $7.7 billion, based on an assumed reduction in Android market share of 100%, based on the position of Professor Jaffe and

---

[1] Google Inc.'s Notice of Motion, Motion, and Memorandum of Points and Authorities in Support of Motion to Strike Portions of Expert Report and Testimony of Dr. James R. Kearl, March 30, 2016 (Dkt. 1584), p. 1.

[2] Google Inc.'s Notice of Motion, Motion, and Memorandum of Points and Authorities in Support of Motion to Strike Portions of Expert Report and Testimony of Dr. James R. Kearl, March 30, 2016 (Dkt. 1584), p. 2: "But his only basis for picking the 13.55% number is the market share analysis from the conjoint study offered by former Oracle expert Dr. Steven Shugan—and excluded by the Court—prior to the first trial."

[3] Google Inc.'s Notice of Motion, Motion, and Memorandum of Points and Authorities in Support of Motion to Strike Portions of Expert Report and Testimony of Dr. James R. Kearl, March 30, 2016 (Dkt. 1584), p. 2: "Second and alternatively, Dr. Kearl adjusts the calculation of Google's expert Dr. Gregory Leonard, opining that the trier of fact could believe that, without the declarations/SSO, fewer applications would have been written for Android.."

Response of Dr. James R. Kearl, Rule 706 Expert, to Google's Motion to Strike
Portions of Expert Report and Testimony of Dr. James R. Kearl   April 8, 2016

(perhaps) Mr. Malackowski that absent infringement the market share of Android would be 0%.[4]

In each case, Google appears to object because my disgorgement opinions identify only the effect on Google's Android profits of different reductions in Android's market share and I "leave it up to the trier of fact" to identify the contribution of the infringement (if any) to Android's market share.[5] Google is correct that I do not hold myself out to be a fact finder in this case. In this regard, what I have sought to do is provide the finder of fact with the correct calculation of the impact on Google profits from various reductions in Android market share.[6]

---

[4] Ex. A to the Declaration of Dr. James R. Kearl (all Exhibits referenced herein will be attached to the Declaration of Dr. James R. Kearl) (Expert Report of Professor James R. Kearl, corrected March 21, 2016), p. 40: "Mr. Malackowski and Professor Jaffe conclude that another non-infringing alternative from Google would have been to not pursue the Android project at all. Mr. Malackowski concludes that the total profits Google has made from Android total $22.6 billion. He then uses a 36% apportionment factor to arrive at his disgorgement damages estimate of $8.8 billion. Mr. Malackowski does not attempt to calculate the But-For profits that Google would have made without Android, and argues that consideration of But-For alternatives in a disgorgement analysis is inappropriate. Dr. Leonard does not explicitly consider this non-infringing alternative in his disgorgement alternatives, although he does calculate the difference in Actual Google Profit (with Android) and But-For Google profit (without Android) in his Exhibit 1a.3. He concludes that the incremental profit that Google has received, from having Android, is $7.7 billion."

[5] Google Inc.'s Notice of Motion, Motion, and Memorandum of Points and Authorities in Support of Motion to Strike Portions of Expert Report and Testimony of Dr. James R. Kearl, March 30, 2016 (Dkt. 1584), p. 1: "Rather than identifying potential outcomes that are supported by facts and economic logic, his opinions essentially leave it up to the trier of fact to decide how large a contribution the SSO and declaring code of the 37 Java SE API packages at issue here ('declarations/SSO') made to those profits."

[6] In my Corrected Expert Report of March 21, Ex. A, pp. 4-5, I note that Dr. Leonard, Mr. Malackowski and Professor Jaffe provide very different "fact" narratives and that these competing narratives result in a *very* wide range of damages estimates: "I have tried to be very careful with regard to differences between Mr. Malackowski, Dr. Leonard and Professor Jaffe that may turn on technical or factual disputes where economic principles or analysis provide little or no insight and have tried, in so far as possible, to focus on those areas where economic analysis provides assistance to the Court. In instances where disputed factual or legal matters have a large impact on damages analysis, I have endeavored to provide alternative damages estimates based on alternative assumptions about the governing law or the findings of fact."

Response of Dr. James R. Kearl, Rule 706 Expert, to Google's Motion to Strike
Portions of Expert Report and Testimony of Dr. James R. Kearl   April 8, 2016

However, I disagree with Google's assertion that the Android market share changes for which I have calculated the change in Google profits are unsupported by facts and economic logic. As discussed below, I believe there is some, possibly disputed, evidence that supports each of the market share changes that I analyze.[7]

II. Discussion of Google's Objections

Google first objects to my reliance on the results of analyses performed by Professors Shugan and Cockburn from the previous phase of this litigation.[8] As I noted in my Corrected Expert Report, I am aware that parts of the analyses and opinions of Professor's Shugan and Cockburn were ruled inadmissible in the previous phase of the litigation. Thus, as I note in my report, if my reliance on those analyses is improper my discussion and opinions expressed in that section should be stricken.[9]

---

[7] My Corrected Expert Report includes at least four assumed Android market share changes (or "potential outcomes"), for which I calculate the assumed change in Google profits. Google does not object to one of these -- the assumption that absent infringement Android would have no reduction in market share, leading to disgorgement damages of $0. However, Google's objections to my other assumptions regarding potential outcomes would equally apply to this assumption, and resulting disgorgement damages opinion, as well.

[8] Google Inc.'s Notice of Motion, Motion, and Memorandum of Points and Authorities in Support of Motion to Strike Portions of Expert Report and Testimony of Dr. James R. Kearl, March 30, 2016 (Dkt. 1584), p. 7: "First, Dr. Kearl's opinion supporting his $2.08 billion disgorgement amount for a "less successful Android" improperly relies on opinions of former expert witnesses who will not testify at trial and who are opining based on a conjoint analysis that this Court already has stricken as unreliable during the first trial."

[9] Ex. A (Expert Report of Professor James R. Kearl, corrected March 21, 2016), fn. 105: "I realize that portions of the expert opinions in the previous litigation were ruled inadmissible by the Court, and that these rulings implicated some of the analyses I discuss here. To the degree my referencing these previous analyses and conclusions is inappropriate, this discussion should be deleted."

Response of Dr. James R. Kearl, Rule 706 Expert, to Google's Motion to Strike
Portions of Expert Report and Testimony of Dr. James R. Kearl   April 8, 2016

Google next objects to my modification of the model of Dr. Leonard.[10] Using a model originally developed by Dr. Kim, Dr. Leonard estimated the reduction in market share of Android if fewer apps were available for Android.[11] Dr. Leonard only performed his analysis for a single assumed reduction in app availability, and the app availability reduction assumed by Dr. Leonard was relatively small (about a 23% reduction).[12] This relatively small reduction in the number of available apps was the result of Dr. Leonard's assumption that all apps available on the actual (infringing) Android that met the following conditions would be available in the But-For (non-infringing) Android:

  a) Google Apps
  b) C++ Apps
  c) Dual-Home Apps
  d) Dual-Home Company Apps
  e) Dual-Language Company Apps[13]

---

[10] Google Inc.'s Notice of Motion, Motion, and Memorandum of Points and Authorities in Support of Motion to Strike Portions of Expert Report and Testimony of Dr. James R. Kearl, March 30, 2016 (Dkt. 1584), p. 11: "But the $3.51 billion high end of Dr. Kearl's disgorgement range assumes that none of these apps would have existed on Android but for the declarations/SSO, and that their absence would have cost Android tens of millions of users. In other words, Dr. Kearl assumes without basis that, developers whose staffs actually could program in multiple languages (including the less-known Objective C), actually had developed applications in those languages, and had even developed apps for Android in the real world in other languages such as C++ would have declined to develop for Android in the absence of the declarations/SSO. ... Because Dr. Kearl's assumptions are implausible, unsupported by the evidence and, in fact, contradicted by the only record evidence, they should be stricken."

[11] Ex. B (Expert Report of Dr. Gregory K. Leonard, Corrected March 10, 2016), ¶ 186: "I have applied the Kim (2013) empirical model of smartphone demand conservatively to estimate the decrease in Android handset sales that would have occurred in a counterfactual where there were fewer Android apps, as well as the percentage of this Android sales decrease that would have been captured by the iPhone."

[12] Ex. A (Expert Report of Professor James R. Kearl), corrected March 21, 2016, ¶ 64: "After imposing the five criteria for app inclusion, approximately 1,000 apps are dropped from the 3,642 Top 100 apps in the analysis (said another way, Dr. Leonard's analysis considers the impact of having removed about 23% of the apps)."

[13] Ex. B (Expert Report of Dr. Gregory K. Leonard), Corrected March 10, 2016, ¶ 192: "For each Android app, I determined whether (1) it is a Google app, (2) it was written using the NDK, (3) it was multi-homed on iOS, (4) its developer also developed apps for iOS, or (5) its developer also developed NDK Android apps. Any app in one or more than one of these categories is assumed to be available on Android in the counterfactual."

Response of Dr. James R. Kearl, Rule 706 Expert, to Google's Motion to Strike
Portions of Expert Report and Testimony of Dr. James R. Kearl   April 8, 2016

Google obviously believes that Dr. Leonard's use of the Kim model is appropriate, but objects to my testing of his selection criteria and my use of the Kim model.[14] I disagree. While it may seem obvious to apply the first two of Dr. Leonard's criteria, the last three criteria – while plausible – are not clearly obvious. That is, it is not obvious (at least to me) that *every* app written for Android in Java, where the app developer has a version for the iPhone (which would not be written in Java), would have been available for the non-infringing version of Android. Dr. Leonard assumes that because the app developer could, and did, make a non-Java version of the app for the iPhone, the developer could and would have made a non-Java version of the app available for the non-infringing version of Android (but, probably a different version of the app written in a different programming language). While this is plausible, it is far from a "slam dunk." Oracle's – and Google's – theory, which appears to be supported by at least *some* qualitative evidence, is that use of the 37 Java APIs was important because it lowered the cost of app development.[15] If this is true, it is well supported in economics and common sense that lower development costs for Android apps would – everything else equal

---

[14] Google Inc.'s Notice of Motion, Motion, and Memorandum of Points and Authorities in Support of Motion to Strike Portions of Expert Report and Testimony of Dr. James R. Kearl, March 30, 2016 (Dkt. 1584), p. 2: "Second and alternatively, Dr. Kearl adjusts the calculation of Google's expert Dr. Gregory Leonard, opining that the trier of fact could believe that, without the declarations/SSO, fewer applications would have been written for Android. But here, his disgorgement amount rests on factually implausible assumptions, including the assumption that large technology companies, such as Facebook and Uber, which have developed apps for multiple mobile platforms and have every incentive to do so, would have declined to develop for a non-infringing Android. This assumption is contradicted by both market facts and logic, and Dr. Kearl cannot even vouch for its plausibility."

[15] Ex. C (Responsive Expert Report of James E. Malackowski, February 29, 2016 (Corrected)), ¶ 129: "By using the familiar Java APIs, Google both attracted more developers to the Android platform and made the work of those developers easier, thus further accelerating the development and acceptance of the Android platform," and Expert Report of Dr. Gregory K. Leonard, Corrected March 10, 2016 (Ex. B), ¶ 174: "As discussed above, the contribution of the alleged infringement to Google's Android-related profits was that it generated cost-savings for Google by allowing Google to avoid taking certain costly actions such as licensing the allegedly infringing work under the OpenJDK and implementing the 37 API packages prior to the Android launch, paying for developers to be trained in another programming language, or paying for application development."

– lead to more apps for Android being available. Google argues that the reduction in app development costs would be negligible, and Oracle argues that the reduction in app development costs would be very large.[16] I do not have the expertise to determine the magnitude of the reduction in app development costs, and I do not believe that Mr. Malackowski or Dr. Leonard does either.[17]

Lastly, Google objects to my disgorgement opinion that if the 37 Java APIs were essential to Android and Android would have a 0% market share absent infringement, damages are $7.7 billion.[18] Google states that "everyone"[19] agrees that it is not factually plausible that

---

[16] Ex. B (Expert Report of Dr. Gregory K. Leonard, Corrected March 10, 2016), ¶ 184: "Assuming, quite conservatively, that Google would have had to pay for development of all these apps, the cost-savings to Google from the alleged infringement (and thus the unjust enrichment) would be between $23 million and $100 million, depending on the cost of app development," and Responsive Expert Report of James E. Malackowski, February 29, 2016 (Corrected) (Ex. C), ¶ 167: "Dr. Leonard ignores the long term costs required to develop and maintain a mobile app and instead basis [sic] his calculation only on estimated up front development costs of $25,000 - $100,000. Industry experts have indicated that up front development costs are only the 'the tip of the iceberg'. A November 2014 Kinvey Report based on a survey of CIOs and Mobile Leaders found that mobile app development can be 'costly, slow and frustrating' and that for development costs alone '…18 percent say they spend from $500,000 to over $1,000,000 per app, with an average of $270,000 per app.' Furthermore, the Google presentation that Dr. Leonard relies upon specifies that up front development costs for games is $500,000."

[17] To the degree that non-Google app writers would be limited to C++, Dr. Leonard's approach provides a method for estimating disgorgement damages.

[18] Google Inc.'s Notice of Motion, Motion, and Memorandum of Points and Authorities in Support of Motion to Strike Portions of Expert Report and Testimony of Dr. James R. Kearl, March 30, 2016 (Dkt. 1584), p. 12: "Finally, Dr. Kearl considered the hypothetical, alternate reality in which Google would have developed no Android operating system at all. If the trier of fact agrees with this alternate reality, Dr. Kearl opines, Google would have missed out on $7.7 billion in profits from Android, and Dr. Kearl posits that the trier of fact could award this entire amount to Oracle as disgorgement. But this conclusion is inadmissible expert opinion testimony for two reasons."

Response of Dr. James R. Kearl, Rule 706 Expert, to Google's Motion to Strike
Portions of Expert Report and Testimony of Dr. James R. Kearl   April 8, 2016

Google would not have developed a non-infringing Android, and that "no party"[20] advances

the position that Android would not have existed without the use of the 37 Java APIs.

While Oracle and its experts can, of course, speak for themselves, it appears clear to

me that in at least some of their opinions, Oracle and its experts take the position that absent

infringement Android would either not have been developed or would have been a complete

market failure. For instance, Professor Jaffe stated in his deposition that "[I]t's my opinion that

there probably would not have been an Android as we know it had it not been for Google's

infringement of the 37 APIs."[21] Google cites this portion of Professor Jaffe's deposition in its

Motion in Limine against Professor Jaffe, and Google further interprets this testimony as Pro-

fessor Jaffe "[a]ssuming counterfactually that there would have been no Android without the

Java SE API declarations/SSO…"[22] Thus, it would appear that Google believes that Profes-

sor Jaffe is advancing the position that absent infringement there would be no Android. I in-

terpret Professor Jaffe's position the same way as Google does in its MIL. Professor Jaffe's

assumption may not be well founded, but it is not correct to say that no one makes that as-

sumption.

---

[19] Google Inc.'s Notice of Motion, Motion, and Memorandum of Points and Authorities in
Support of Motion to Strike Portions of Expert Report and Testimony of Dr. James R.
Kearl, March 30, 2016 (Dkt. 1584), p. 2: "Third, Dr. Kearl bases another
disgorgement calculation on the premise that the trier of fact could conclude that,
without the declarations/SSO, there would be no Android at all. But everyone—
including Dr. Kearl and even Oracle's expert Mr. James Malackowski—agrees that
this is not factually plausible, and that Google would have developed some version of
Android even without the allegedly infringing material."

[20] Google Inc.'s Notice of Motion, Motion, and Memorandum of Points and Authorities in
Support of Motion to Strike Portions of Expert Report and Testimony of Dr. James R.
Kearl, March 30, 2016 (Dkt. 1584), p. 7: "Third, he offers a calculation based on a
factual scenario that no party advances, and even Oracle dismisses as unrealistic—
that Google would not have developed Android at all without the SSO/declarations."

[21] Ex. D (Deposition of Adam B. Jaffe, March 10, 2016), p. 140.

[22] Defendant Google Inc.'s Motion in Limine No. 4 to Exclude Market Harm Testimony from
Expert Report of Dr. Adam Jaffe (Dkt. 1561), p. 6.

Response of Dr. James R. Kearl, Rule 706 Expert, to Google's Motion to Strike
Portions of Expert Report and Testimony of Dr. James R. Kearl   April 8, 2016

Google also appears to be incorrect in claiming that Mr. Malackowski does not as-sume Android would not exist without infringement. For example, Mr. Malackowski writes: "Assuming Android would have existed without Google's infringement is also speculative."[23] In addition, in his deposition, Mr. Malackowski stated that in order for Android to be success-ful, Android would have to have been a Java-based platform.[24] In his initial report Mr. Malackowski also states "[I] also understand there were no commercially acceptable alterna-tives available to Google given its perceived market risks, other than to utilize the Infringed Java Copyrights as it did."[25] In that report he adds: "The infringed Java Copyrights were es-sential for Google to establish Android in the wake of Apple's market entry and intense com-petitive pressure from Facebook."[26] And later, "…the Infringed Java Copyrights were the only available option to succeed in the time window that Google required. Google's mobile strategy depended on the Android platform, and that platform depended upon the Infringed Java Copyrights."[27] Google appears to have recognized Mr. Malackowski's position on the alternative that Android would not exist in its Motion in Opposition to the Motion in Limine re-garding Dr. Leonard, so I do not believe that they can claim that no one would proffer that

---

[23] Ex. C (Responsive Expert Report of James E. Malackowski, February 29, 2016 (Corrected)), ¶ 60.

[24] Ex. E (Deposition of James Malackowski, March 17, 2016), p. 110: "Q. It would have to be a Java-based system? A. In my opinion, in order to be successful in that window of opportunity, as confirmed by what they actually did, the actual events, the revealed preference, so to speak; and as confirmed by the substantial promotion of Java to the OEM community, as detailed in the last exhibit, or appendix of my second report; and as confirmed by the testimony in this record which cited, which all points to the fact that the OEMs required Java, yes, it is my opinion that there was not an alternative platform that would have allowed them to penetrate the window and reach commercial success."

[25] Ex. F (Expert Report of James E. Malackowski (Corrected), January 8, 2016), ¶ 232.

[26] Ex. F (Expert Report of James E. Malackowski (Corrected), January 8, 2016), ¶ 241.

[27] Ex. F (Expert Report of James E. Malackowski (Corrected), January 8, 2016), ¶ 242.

Response of Dr. James R. Kearl, Rule 706 Expert, to Google's Motion to Strike
Portions of Expert Report and Testimony of Dr. James R. Kearl   April 8, 2016

opinion.[28] Thus, I believe that it is accurate to say that, in at least some of his opinions, Mr. Malackowski does assume that Android would not exist but for Google's use of the 37 Java APIs. Whether his assumption is well founded is a factual issue about which I have no opinion, but if it is correct, then my opinion with regard to damages would be helpful to the jury.

Respectfully submitted this 8th day of April, 2016

/s/ James R. Kearl

_____

J.R. Kearl

I hereby attest that I have on file all holograph signatures for any signatures indicated by a "conformed" signature (/s/) within this e-filed document.

/s/ John L. Cooper

John L. Cooper

---

[28] Google Inc.'s Opposition to Oracle's Motion in Limine #4 Regarding Google's Damages Expert, Dr. Gregory Leonard (Dkt. 1606), pp. 4-5: "In fact, despite Oracle's protests, Oracle's own expert, James Malackowski, also bases both his causal nexus and his supposed apportionment analysis on an 'embedded' counterfactual analysis—the assumption that Android would not exist ***at all*** 'but for' Google's use of the declarations/SSO of 37 Java SE APIs."